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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/723,697	11/28/2000	Yang T. Shieh	A1114/20006	7614

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EXAMINER
AFTERGUT, JEFF H

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 10/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/723,697	SHIEH, YANG T.	
	Examiner	Art Unit	
	Jeff H. Aftergut	1733	

-- The MAILING DATE of this communication appears n the cover sheet with the c rresp ndence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) *1-20 and 26* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Election/Restrictions

1. Claims 1-20 and 26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention and species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 7.

It should be noted that the election previously made in paper no. 7 was incomplete in that an election of the species was not included in the election. Per a telephone interview dated 10-7-02, applicant's representative elected the species of carrying out the steps while the roll was disposed horizontally (claim 25). Accordingly, claim 26 has been withdrawn from consideration, the election having been made without traverse.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paasonen et al (US Patent 5,601,920) in view of either one of Watanabe (US Patent 4,368,568) or Fukuyama.

Paasonen et al '920 suggested that it was known to form a covered roll for industrial rolls wherein one employed a vacuum impregnation technique to impregnate the reinforcement of the roll. The reference suggested that one skilled in the art would have applied a reinforcing material to the roll and then applied a cover thereto. The reference suggested that the cover was then provided with holes therein through which one applied resin in order to impregnate the

reinforcement of the roll. The reference suggested the one would have associated valves with the cutouts of the cover and that one would have later sealed the openings after the impregnation operation. The applicant is referred to Figures 5 and 6 and column 5, lines 26-64. The reference suggested that the reinforcement was in the form of a woven material rather than in the form of a wound fiber.

However, those skilled in the art of manufacturing rolls for industrial uses would have known at the time the invention was made to employ a wound fiber layer as the reinforcement within the intermediate layer of the roll as evidenced by either one of Watanabe '568 or Fukuyama. More specifically, Watanabe '568 (column 4, lines 2-6, column 5, lines 66-column 6, line 3) and Fukuyama (column 3, lines 38-42, Figure 1, and the various examples) both taught that those skilled in the art at the time the invention was made would have applied a wound layer about the roll to reinforce the same wherein the reinforcement which was wound would have improved the compressive strength of the finished assembly. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide reinforcement for a roil via a winding operation (rather than a cloth) as suggested by either one of Watanabe '568 or Fukuyama in the process of making a reinforced roll as taught by Paasonen et al '920.

With respect to claim 24, note that those skilled in the art would have known to apply resin to the roll in order to effect the temporary attachment of the windings in the operation and such is taken as conventional in the art. Those skilled in the art of winding dry fibers would have known to apply resin to the form prior to the winding operation in order to secure the fibers to the roll.

4. Claims 22, 23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 3 further taken with Brookstein and Paul, Jr.

The references as set forth above suggested that one skilled in the art would have infused the dry fibers disposed under the cover by cutting openings in the cover and infiltrating resin inside the assembly, see Paasonen et al '920. The references failed to express that one skilled in the art at the time the invention was made would have applied vacuum to the assembly in the impregnation operation.

Brookstein suggested that in order to impregnate a fiber reinforcement of a roll it was known to infuse resin through the reinforcement with the application of vacuum assist in order to facilitate the impregnation operation, see column 4, lines 27-34. The reference to Paul, Jr. suggested that the use of vacuum to impregnate dry wound fibers would have eliminated voids caused by air in the finished assembly, column 1, line 70-column 2, line 17. Clearly, infusion with resin which included the application of vacuum would have been desirable, as it would have eliminated the voids in the finished assembly. It would have been obvious to include vacuum in the impregnation operation of Paasonen et al '920 in order to enhance the removal of voids in the finished assembly as suggested by Brookstein and Paul, Jr. in the process as set forth above in paragraph 3.

With regard to claim 23, the reference to Paasonen '920 suggested sealing the openings and attachment of valves to the same. Regarding claim 25, it should be noted that the operation which included the vacuum impregnation would have been known to take place with the assembly either vertical or horizontal and that there is no appreciable difference as to whether one impregnated with the assembly horizontal or vertical.

5. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraphs 3 or 4 further in view of either one of McGaughey et al or Francis.

The references as set forth above in paragraph 3 and 4 taught the basic operation, but failed to expressly state that those skilled in the art of forming a roll would have applied a resin layer to the core prior to the application of the dry reinforcement to the same. Such was taken as conventional in the art at the time the invention was made. To evidence the same, the references to Francis or McGaughey et al both suggested that those skilled in the art would have applied resin to the surface prior to winding or applying dry reinforcement upon the same in order to secure the reinforcement to the form. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the techniques of either one of Francis or McGaughey in the operation of assembling fibers upon a form for making a reinforced roll as set forth above in paragraphs 3 or 4.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 recites that the process was performed horizontally while carrying out steps b-f, however steps b-f are not present in claim 21 (and thus there is a lack of antecedent basis). It is believed that claim 25 should be made dependent upon claim 22.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is 703-308-2069. The examiner can normally be reached on Monday-Friday 6:30-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jeff H. Aftergut
Primary Examiner
Art Unit 1733

JHA
October 8, 2002